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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,756	03/08/2002	Junichi Ikeda	112176	2862
25944	7590	03/23/2005	EXAMINER	
OLIFF & BERRIDGE, PLC			CHANG, VICTOR S	
P.O. BOX 19928			ART UNIT	
ALEXANDRIA, VA 22320			PAPER NUMBER	
			1771	

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/092,756

Applicant(s)

IKEDA ET AL.

Examiner

Victor S Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2 and 4-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2 and 4-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Introduction*

1. The Examiner has carefully considered Applicants' amendments and remarks filed on 1/24/2005. Applicants' amendments to claim 4 has been entered.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Rejections not maintained are withdrawn.

### ***Claim Rejections - 35 USC § 112***

4. Claims 2 and 4-11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

More particularly, it is noted that independent claim 4 has been newly amended to recite "... a dilution monomer is impregnated into or coated onto the supporting layer ...", whereas the specification at page 12 only teaches that "to adjust the coating viscosity, a solvent or a dilution monomer may coexist in the urethane prepolymer". In other words, the specification only teaches a mixture of urethane prepolymer and dilution monomer being impregnated into or coated onto the supporting layer, the amendment appears to recite that the dilution monomer itself is separately impregnated

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into or coated onto the supporting layer. As such, the specification fails to provide support for the amendment as claimed, and appears to be a new matter.

5. Claims 2 and 4-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As set forth above, since the specification only teaches a mixture of urethane prepolymer and dilution monomer being impregnated into or coated onto the supporting layer, not the dilution monomer itself being impregnated into or coated onto the supporting layer, as such the amended claim is not commensurate with the disclosure. The Examiner would like to suggest that if the embodiment of a mixture of urethane prepolymer and dilution monomer, at page 12 of the specification, is intended for the independent claim 4, then a proper rewrite is required to clarify the spatial relationship among the claimed elements. The Examiner suggests additional amendment as follows: "... an adhesive polymer formed from a polymerized and cured mixture of urethane prepolymer and a dilution monomer, said adhesive polymer is impregnated ...". Clarification is requested.

### ***Rejections Based on Prior Art***

6. Claims 2 and 4-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ansell et al. (US 5087686) in view of Huver et al. (US 5700891), and further in view of Hatton (US 6086795), generally as set forth in section 5 of Office action dated 9/22/2004, together with the following additional reasoning and response to argument.

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First, it is noted that independent claim 4 has been amended to add a new element "a dilution monomer ... wherein the dilution monomer is selected from the group consisting of decyl (meth)acrylate, dodecyl (meth)acrylate, tridecyl (meth)acrylate, octadecyl (meth)acrylate and isomers of these (meth)acrylate."

With respect to Applicants' argument "Ansell, alone or in view of Huver, fails to teach or suggest such an adhesive material." (Remarks, page 5, 4<sup>th</sup> paragraph), the Examiner notes that while Ansell and Huver lack a teaching of a dilution monomer selected from the newly added above-mentioned Markush group of monomers, Huver does expressly teach that the adhesive composition may further contain one or more (meth)acrylate monomers (column 6, lines 9-10); further, Ansell does show in Examples 1-4 that suitable viscosities of the radiation curable adhesive are required. Additionally, it is noted that Hatton's invention is directed to a radiation curable adhesive composition, and Hatton expressly teaches that suitable monomers such as n-butyl acrylate, 2-ethylhexyl acrylate, n-octadecyl acrylate, etc., are optionally included as reactive diluent in radiation curable urethane acrylate adhesive compositions for adjusting the viscosities to facilitate their application to substrates (column 15, lines 35-50). As such, in the absence of unexpected results, it would have been obvious to one of ordinary skill in the art to modify the adhesive composition of Ansell and Huver with a suitable diluent monomer such as n-octadecyl acrylate, as taught by Hatton, motivated by the desire to obtain a suitable viscosity to facilitate the application of the adhesive to an substrate. Finally, the Examiner notes that whether the urethane prepolymer and the dilution monomer are impregnated into or coated onto the supporting layer via

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processes as a mixture or separately, the combined teachings of prior art references (which teach a mixture of prepolymer and dilution monomer being impregnated into or coated onto the supporting layer) accounts for the structural relationship as claimed, i.e., the dilution monomer in a mixture inherently reads on the amended claim recitation of "an adhesive polymer formed from ... a dilution monomer" as claimed.

With respect to Applicants' argument "The prepolymer and the dilution monomer combine to give the adhesive polymer a low TG, resulting in an adhesion ratio of more than 1:1.5 towards the polyethylene terephthalate and iron. See p.10, lines 10-21." (Remarks, page 6, top paragraph), the Examiner first notes that the support provided by Applicants at specification page 10, lines 10-21, fail to teach there is a relationship between the low TG and adhesion ratio. Second, it is noted that the provided support in fact teaches the same common knowledge that the reactive diluent facilitates the usage of the adhesive. Third, it should be noted that the adhesion ratio towards the polyethylene terephthalate and iron is not recited in any claim. Fourth, even if the adhesion ratio is recited in a claim, it should be noted that the combined teachings of prior art references reads on the composition as claimed, as such it is the Examiner's position that a suitable adhesion is either inherent or obviously provided once the product is made.

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**Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*VSC*

Victor S Chang  
Examiner  
Art Unit 1771

3/9/2005

*Elizabeth M Cole*  
ELIZABETH M. COLE  
PRIMARY EXAMINER